

Plant and Equipment Expenditures, 1983

NEW plant and equipment expenditures planned by U.S. nonfarm business for 1983 total \$815.7 billion, 1.3 percent less than in 1982, according to the annual survey conducted by BEA in late November and December (table 1 and chart 8). Spending for 1982, based on the quarterly survey conducted a month earlier, is \$320.0 billion, 0.5 percent less than in 1981.¹

Prior to the latest survey results, current-dollar "year-ahead" investment plans reported by BEA early in the year have not indicated a decline in the past 20 years; the last such decline was for 1963, based on the January-February survey.

Capital spending after adjustment by BEA for price changes indicates a 5.2-percent decline in 1983 (table 2). A decline of 4.8 percent is indicated for 1982. Real spending increased 0.2 percent in 1981 and 0.9 percent in 1980. Implicit price deflators prepared for the survey data by BEA indicate that prices of capital goods purchased by business in 1982 increased 4.8 percent

and will increase 4.0 percent in 1983. Survey respondents reported a larger price increase for 1982, 7.7 percent, and expect a 7.1-percent increase in 1983 (table 3).²

2. To estimate real spending, the figures reported by survey respondents are adjusted using implicit price deflators for each industry prepared by BEA based on unpublished data in the national income and product accounts. Deflators calculated by BEA for the 1983 spending plans were extrapolated from 1982 deflators using the percentage change in prices in 1982, for each industry, adjusted by the ratios of the expected 1983 price change to the 1982 price change reported by survey respondents. Thus, the procedure incorpo-

rates respondents' expectations that price increases in 1983 will be smaller than the increases in 1982.

Respondents were asked:
"What are your best estimates of average price changes from 1981 to 1982 and expected price changes from 1982 to 1983?"

"a. Prices paid by your company for new construction, machinery, and equipment."
"b. Prices of goods and/or services sold by your company."

The companies' responses on capital goods and sales price changes were weighted by their reported capital expenditures and sales, respectively.

Table 1.—Expenditures for New Plant and Equipment by U.S. Nonfarm Business, 1981-83

	Billions of dollars			Percent change	
	1981	1982*	1983 ¹	1981-82	1982-83
Total nonfarm business.....	321.45	319.39	315.61	-0.5	-1.3
Manufacturing.....	126.79	122.67	119.62	-2.3	-2.6
Durable goods.....	61.84	57.95	57.35	-6.3	-1.0
Primary metals.....	8.12	7.78	6.84	-4.1	-12.5
Steel furnaces, steel works.....	3.77	3.63	2.94	-3.7	-19.1
Nonferrous metals.....	3.46	2.87	2.39	-17.0	-17.0
Fabricated metals.....	2.96	2.64	2.52	-11.0	-4.5
Electrical machinery.....	10.81	10.67	11.75	-1.3	10.2
Machinery, except electrical.....	18.22	13.59	14.20	-25.2	4.5
Transportation equipment.....	18.39	15.05	14.95	-17.9	-0.7
Motor vehicles.....	10.08	7.81	8.09	-21.5	3.6
Aircraft.....	5.43	5.32	5.69	-2.0	6.2
Stee, clay, and glass.....	3.14	2.60	2.39	-17.3	-8.2
Other durables.....	5.69	5.28	5.19	-7.3	-1.7
Nondurable goods.....	64.95	64.72	62.15	-0.4	-3.9
Food including beverage.....	8.28	7.67	8.00	-7.3	4.3
Textiles.....	1.56	1.59	1.29	1.9	-18.9
Paper.....	4.72	5.06	4.16	7.2	-17.8
Chemicals.....	13.60	13.82	13.18	1.6	-4.6
Petrochemicals.....	25.55	27.89	24.62	9.3	-11.8
Rubber.....	1.77	1.75	1.98	-1.1	13.4
Other nondurables.....	6.59	6.64	6.95	0.8	4.6
Nonmanufacturing.....	194.76	197.32	196.19	1.3	-0.6
Mining.....	16.88	18.05	16.45	6.8	-9.4
Transportation.....	12.05	11.98	11.92	-0.6	-0.5
Railroad.....	4.24	4.12	4.11	-2.8	-0.2
Air.....	3.81	3.97	4.04	4.2	1.8
Other.....	4.00	3.71	3.77	-7.2	1.6
Public utilities.....	35.40	41.62	39.38	17.6	-5.4
Electric.....	29.74	33.95	31.30	14.1	-7.9
Gas and other.....	5.66	7.67	8.08	35.3	5.2
Trade and services.....	35.33	36.42	35.95	3.1	-1.3
Communication and other.....	41.06	41.43	40.96	0.9	-1.1

* Preliminary.

1. Planned capital expenditures reported by business in late November and December 1982. Plans for each industry have been adjusted for systematic biases.

2. Includes industries not shown separately.

3. Consists of lumber, furniture, instruments, and miscellaneous.

4. Consists of apparel, tobacco, leather, and printing-publishing.

5. Includes construction; social services and membership organizations; and forestry, fisheries, and agricultural services.

1. For estimates of prior years, see "Revised Estimates of New Plant and Equipment Expenditures in the United States, 1947-77," pages 42-49, in the October 1980 Survey of Current Business; the December 1980 issue, page 44; and the March 1982 issue, page 25.

The 1982 estimate is based on actual expenditures in the first three quarters and plans for the fourth quarter. The plans, collected by BEA in October and November, were adjusted for systematic biases by procedures described in the October 1980 Survey.

The 1983 plans were also adjusted for systematic biases. The net effect of the adjustments was to lower manufacturing \$0.8 billion and to raise nonmanufacturing \$0.8 billion; before adjustment, plans were \$120.3 billion for manufacturing and \$190.9 billion for nonmanufacturing. Bias adjustments were computed separately for each major industry group and were applied only when plans deviated from actual spending in the same direction for at least 5 of the last 7 years. In these cases, the adjustment used was the median deviation between actual and planned spending in the last 5 years.

centage points by which the 1982 price increase reported by respondents exceeded the BEA measure is within the range, 1-3½ percentage points, recorded in 12 of the 18 annual surveys conducted since 1969.

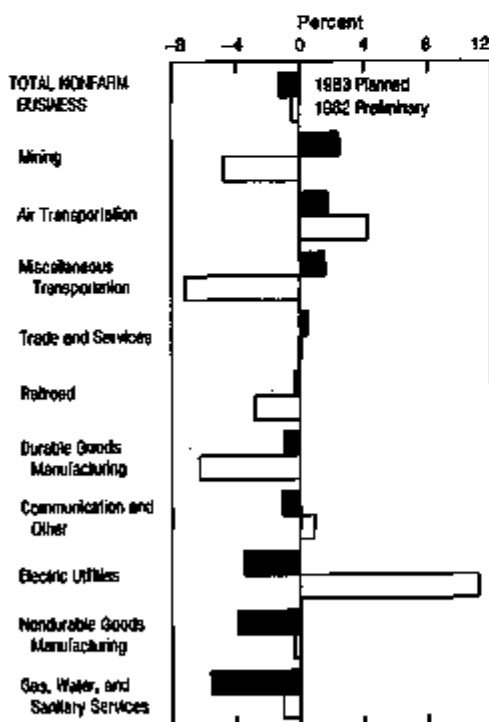
The BEA quarterly survey of spending plans conducted in October and November and reported in December indicated an increase of 0.9 percent in current-dollar spending from the second half of 1982 to the first half of 1983. Between the two surveys, economic conditions showed little, if any, improvement, and the latest survey results suggest that first-half plans may have been revised down.

Industry plans

Estimates of planned real spending in manufacturing show a 5.5-percent decline—3.5 percent in durable goods and 7.6 percent in nondurables. Last year, manufacturing spending de-

CHART 8

Changes in Business Investment



U.S. Department of Commerce, Bureau of Economic Analysis

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Table 2.—Real Expenditures for New Plant and Equipment by U.S. Nonfarm Business, 1981-83

	Billions of 1972 dollars			Percent change	
	1981	1982*	1983*	1981-82	1982-83
Total nonfarm business	159.44	151.75	143.78	-4.8	-5.2
Manufacturing	64.76	58.59	53.44	-9.3	-8.5
Durable goods	31.61	29.06	26.07	-8.2	-10.3
Nondurable goods	29.06	27.46	26.37	-5.6	-3.6
Nonmanufacturing	88.69	95.22	90.36	7.4	-5.1
Mining	5.39	4.71	4.48	-12.6	-4.9
Transportation	5.99	5.31	5.18	-11.3	-2.6
Public utilities	17.80	17.92	16.97	0.7	-5.3
Trade and services	47.27	48.08	44.95	1.7	-6.4
Communication and other	23.14	21.57	19.76	-7.2	-8.4

* Preliminary.

1. Plans reported by business in late November and December 1982, adjusted by BEA for assumed price changes.

Table 3.—Change in Prices of Capital Goods Purchased

(Percent change from preceding year)

	Reported in Nov.-Dec. 1981 survey		Reported in Nov.-Dec. 1982 survey	
	Actual 1981	Expected 1982	Actual 1982	Expected 1983
Total nonfarm business	10.9	10.4	7.7	7.1
Manufacturing	10.7	10.1	5.6	6.2
Durable goods	10.3	9.7	5.5	6.0
Nondurable goods	11.0	10.5	8.7	6.8
Nonmanufacturing	11.0	10.8	8.4	7.7
Mining	10.5	10.7	7.6	6.1
Transportation	10.3	10.1	7.9	7.1
Public utilities	10.3	9.5	8.7	7.6
Other	10.5	10.8	8.6	7.9

1. Includes trade, services, and "communication and other" as defined in Table 1.

Table 4.—Percent Change in Business Sales

	1982		1983
	Expected as reported in Nov.-Dec. 1981 survey	Actual	Expected as reported in Nov.-Dec. 1982 survey
Manufacturing	11.5	-5.6	10.3
Durable goods ¹	13.1	-2.9	11.6
Primary metals	12.5	-26.9	11.6
Fabricated metals	11.1	-7.6	10.5
Electrical machinery	10.8	-1	12.1
Machinery, except electrical	13.2	-9.0	9.6
Transportation equipment	17.7	-5.8	15.3
Stone, clay, and glass	9.5	-8.1	8.4
Nondurable goods ¹	9.8	-2.7	9.2
Food including beverage	9.4	7	8.4
Textiles	7.6	-1.9	8.6
Paper	13.4	-1.5	10.7
Chemicals	12.6	-3.7	12.3
Petroleum	7.4	-8.0	6.3
Rubber	12.1	-8.1	11.3
Trade	9.7	-1.4	7.1
Wholesale	10.9	-4.2	7.2
Retail	8.5	1.9	6.9
Public utilities	15.6	11.9	14.7

1. Includes industries not shown separately.

Sources: Manufacturing data from Bureau of the Census, Current Industrial Reports, Series M-1, for first 11 months of 1982, and BEA estimates for December 1982. Trade data are from the Bureau of the Census, Current Business Reports, Monthly Wholesale Trade and Monthly Retail Trade, and BEA estimates for December 1982. Public utility figures are estimated by BEA on the basis of data collected in the annual business investment surveys.

declined 6.9 percent, with a larger decline in durables. A 5.1-percent decline is estimated for nonmanufacturing, compared with a 3.5-percent decline last year; declines are indicated in all major industry groups this year.

In current dollars, manufacturing industries plan to spend \$119.5 billion in 1983, a 2.6-percent decline; spending in 1982 declined 8.3 percent. The largest planned declines this year are in iron and steel, 19 percent; nonferrous metals, 17 percent; and petroleum, 11 percent. Sizable increases are planned in rubber, 18 percent, and electrical machinery, 10 percent.

Nonmanufacturing industries plan current-dollar spending of \$196.2 billion in 1983, a 0.6-percent decline; spending in 1982 increased 1.3 percent. The largest planned decline this year is in public utilities, 4 percent, following an 8½-percent increase in 1982. Mining firms plan a 2½-percent increase in 1983, after a 5-percent decline.

Table 5.—Change in Prices of Products and Services Sold by Manufacturing and Utility Companies

[Percent change from preceding year]

	Reported in Nov.-Dec. 1981 survey		Reported in Nov.-Dec. 1982 survey	
	Actual 1981	Expected 1982	Actual 1982	Expected 1983
Manufacturing	9.3	7.7	3.8	6.0
Durable goods	8.1	7.4	5.2	5.7
Non-durable goods	10.1	8.0	2.4	4.4
Public Utilities	13.7	14.3	15.0	12.6

Sales and sales prices

Manufacturers expect their sales to increase 10½ percent in 1983 (table 4). Sales in 1982 declined 5½ percent, compared with an expected 11½-percent increase. Trade firms expect an increase of 7 percent in 1983; they reported a 1½-percent decline for 1982, compared with an expected 9½-percent increase. Public utilities expect a 15-percent increase in 1983 revenues, compared with an estimated 14 per-

cent in 1982; they had expected a 16-percent increase.

Manufacturers expect the prices of the goods and services they sell to increase at a slightly higher rate in 1983 than in 1982 (table 5). They expect prices to increase 5 percent in 1983, compared with a 4-percent increase in 1982; a year ago, they had expected a 7½-percent increase. Public utilities expect a 12½-percent increase; they reported a 15-percent increase last year, about the same as they had expected.